

# NUEL SC

## Nutrition - Training Guide

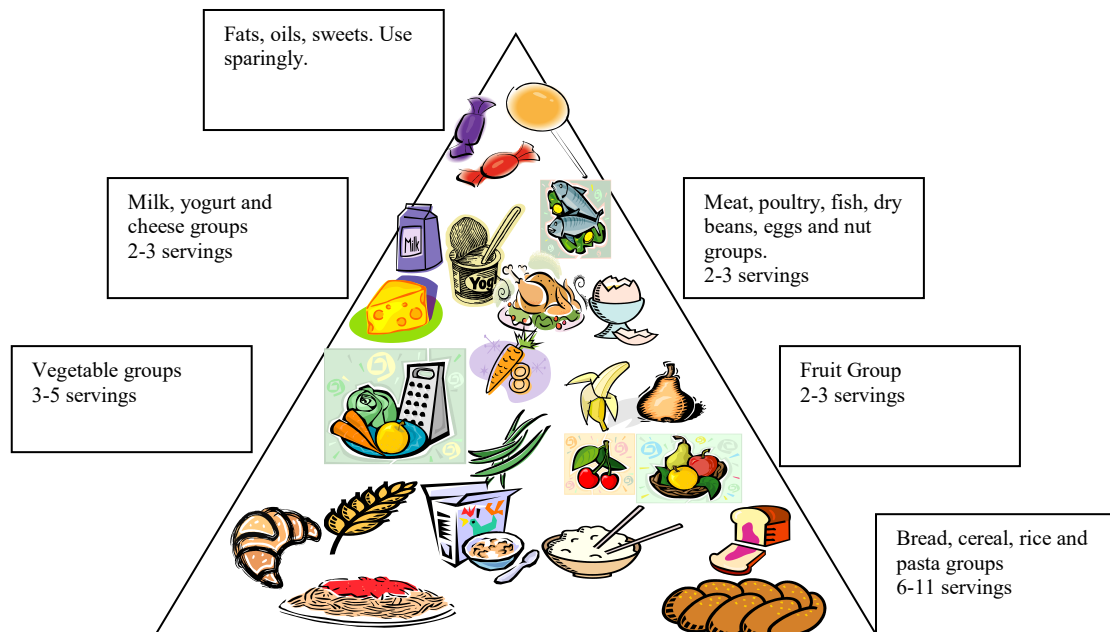
### Why is food important?

Food provides fuel for the body to allow us to function and perform to the best of our ability. A balanced diet will ensure all of our energy systems are at their maximum and restored after training.

### A balanced diet includes:

1. Carbohydrates (pasta, rice, bread, potatoes, cereals, veg and fruit). Carbohydrates are the main source of nutrients for swimmers. Main source for energy
2. Proteins (meat, fish, Soya, nuts, beans, milk). To enhance growth and muscle repair.
3. Fat (Soya beans, veg oil, fish oils, nuts, corn). Bad fatty products include chocolate, cakes, cream & cheese. This source of energy is required more during long distance events and high mileage.
4. Vitamins (mainly fruit and veg)
5. Minerals (dairy produce, meat, nuts, green veg, fish, salt & liver).
6. Fibre (cereals, outside of fruits, veg, beans and grains). Aids the absorption of other foods and helps to release sugars slowly into the bloodstream to produce energy.
7. Fluids. Essential to prevent dehydration and loss of performance. Swimmers should drink up to 6-8 litres per day (12-16 small bottles of water or 6-8 big bottles).

### Daily recommendations for a balanced diet



## Nutrition for the week

### Before Morning Training

**YOU MUST EAT BEFORE MORNING TRAINING.** Your body has a low level of carbs / sugar base. **IF YOU TRAIN WITHOUT EATING ANYTHING, YOU ARE DEPLETING YOUR CARBOHYDRATE LEVELS EVEN FURTHER. YOUR MENTAL STATE AND PERFORMANCE AT THE NEXT TRAINING SESSION WILL SUFFER.**

Recommended foods before morning sessions; Smoothies, sports drink (diluted), breakfast bar, jaffa cakes, current bun, toast and jam, pancake, cereal, musli bar. A DRINK IS A MUST. Food with a medium GI.

### Breakfast

Breakfast can consist of a bowl of cereal, water then fruit juice and a piece of fruit / yoghurt, muffins, eggs.

### Lunch

Lunch should consist of high carb intake eg sandwich with tuna, pasta, chicken etc, jacket pot, veg, fruit, health bars etc. The idea is to build up your glycogen levels. Protein and food that are high in nutrients.

### Before a Training Session (2-4 hours before)

Sandwich/ roll/ bagel/ wrap filled with chicken, fish, cheese, egg or peanut butter and salad  Jacket potato with beans, cheese, tuna, coleslaw or chicken  Pasta with tomato-based pasta sauce and cheese and vegetables  Chicken with rice and salad  Vegetable and prawn or tofu stir fry with noodles or rice  Pilaff or rice salad  Mixed bean hot pot with potatoes  Chicken and vegetable casserole with potatoes  Porridge made with milk  Wholegrain cereal (e.g. bran or wheat flakes, muesli or Weetabix) with milk or yoghurt  Fish and potato pie

### Before a Training Session (1-2 hours before)

**YOU MUST** have a light snack at least an hour before, a digestible snack. The snack must be carbohydrate based with a sugar base. Health bar with nuts 'good' fats is also an option. This list provides an example of pre-workout meals 1 to 2 hours before exercise:  Fresh fruit  Dried apricots, dates or raisins  Smoothie (home-made or ready-bought)  Yoghurt  Shake

(home-made or a meal replacement shake)  Energy or nutrition bar  Cereal bar or flapjack  Toast with honey or jam  Porridge or wholegrain cereal with milk

### Food during a training session

A carb / protein snack should be consumed. This can be in the form of fluids or solids.

### Food Intake After Training

Snacks to be consumed as soon as possible - preferably 15-30mins afterwards. HI GI foods within 20mins and then low to moderate GI for your main meal which should be consumed 1-2 hours after training, Pasta, chicken, rice, oily fish, veg, salad, bread, red meat, turkey, spaghetti, pots, oven chips, noodles, and white fish. If you eat 2-4 hours after, glycogen levels (energy stores) are lower. You also want to restore protein and fluid levels. Wait at least 40 mins before consuming a high GI dessert – reason, the high sugar levels from the dessert will rush into the blood stream, hence causing the good nutrients / carbs from the evening meal to be stored as fat and deposited. Eat an energy bar a piece of fruit in the car after training. You can also have a sports drink. Should have drunk 1-1.5l of fluid after training. Examples of post training meals / snacks

- 500 ml flavoured milk; one cereal bar; one banana
- Two bananas; 500 ml of semi-skimmed milk
- A wholemeal tuna sandwich (two slices of bread, 50 g tuna); one pot (150 g) yogurt
- Recovery milkshake: mix 300 ml low fat milk, one pot (150 g) fruit yogurt, one banana, 100 g strawberries and two heaped teaspoons (30 g) honey in a blender
- A wholemeal cheese sandwich (two slices bread; 40 g cheese); 100 g dried apricots
- 200 g baked beans on two slices wholemeal toast
- Two cereal bars plus 500 ml skimmed milk
- 60 g raisins and 50 g nuts
- Two Weetabix; 300 ml low-fat milk; one pot (150 g) fruit yogurt; 30 g sultanas
- A jacket potato (200 g) with 200 g baked beans and 40 g cheese
- Cooked pasta (85 g uncooked weight) with 130 g chicken breast
- Three oatcakes; 60 g hummus; 500 g low-fat milk

## Nutrition for Galas

### Before Galas

7 days out before a major competition you maintain the carb intake and the following 3 days (up to day 4) increase carb intake slight to 5-7gms of carbs per kilo of body weight. The last 3 days (8-10gms)

. This will only work with a taper though. This will ensure that your energy levels remain high, your body recovers quicker, you stay alert and don't fatigue. This will give you the best opportunity to ensure optimum performance. 3 days before the competition you will reduce

### Breakfast on the day of the gala (1-2 hours before)

Breakfast can consist of a bowl of cereal, water then fruit juice and a piece of fruit / yoghurt, muffins, eggs, milk shake, smoothie. Start the day off correctly

*What if I am Nervous????*

If you can't eat solids then eat liquid meals e.g. protein-carb rich drinks, Milk Shakes,

Yogurts, Smoothies, Pureed Fruit (not dried), Cereals.

**AVOID high fibre foods and caffeine**

### 15-30mins before a race

Drink squash. Eat light snacks that have a high GI eg Glucose, White, Jelly, Rice cakes, Crispbread, Raisins, Water melon, Pineapple, small bit of chocolate.

### 15-30mins After a race

Drink squash. Eat light snacks that have a high GI eg Glucose, White, Jelly, Rice cakes, Crispbread, Raisins, Water melon, Pineapple, small bit of chocolate. If you have a long time between races (an hour or two), have food with moderate GI.

### Between sessions Lunch (1-2 hours rest)

Foods that consist of medium GI egg Basmati rice, noodles, pita bread, Rye bread, Honey, Jam, Ice cream, new potatoes. Digestive oatmeal and rich tea biscuits, Muffins, baked beans, bananas, grapes, kiwi, mangos, oranges, sultanas, custard, chocolate, carrots, boiled pots, peas, sweet corn.

### Food Intake after Competition

Snacks to be consumed as soon as possible - preferably 15-30mins afterwards. Eat a balanced meal 1-2 hours after training. If you eat 2-4 hours after, glycogen levels (energy stores) are lower. You also want to restore protein and fluid levels. Wait at least 40 mins before consuming a high GI dessert – reason, the high sugar levels from the dessert will rush into the blood stream, hence causing the good nutrients / carbs from the evening meal to be stored as fat and deposited.

Eat an energy bar a piece of fruit in the car after training. You can also have a sports drink. Should have drunk 1-1.5l of fluid after training. Pasta, chicken, rice, oily fish, veg, salad, bread, red meat, turkey, spaghetti, pots, oven chips, noodles, white fish

# Hydration

## Fluid Intake

**DRINK CAN AFFECT YOUR PERFORMANCE – drink before, during and after sessions, and during warm ups, including competition warm ups. You should drink 1-2 litres per day PLUS 400-800ml of fluid per hour during exercise**

Squash should be consumed, but you can add a PINCH of salt. Water / squash drinks should be consumed during the day.

Isotonic drinks can be consumed during and after training and competition.

Fizzy drinks expand the stomach and stops the NEED for drinking and contain too much sugar and acid – these drinks should be avoided.

## Before training and competition

Squash with a small pinch of salt or a diluted sports drink. No fizzy drink during training. Must be sipped continuously during training and a full litre bottle should have been consumed by the time the session has finished. . Approx 5-7ml of fluid per kg of body weight to be drunk slowly 4-2 hours before exercise. Then approx. 100-25ml before exercise. (Isotonic & Hypotonic)

## During Training

Replacing lost fluid (sweat) can maintain optimal performance. For our swim workouts you need to avoid early glycogen depletion therefore you can have sports drinks or squash with a pinch of salt during exercise. Remember, you will need to drink approx. 800ml-1.5l for a 2 hour session (Isotonic & Hypotonic)

## After Training and competition

High Carb drinks such as PowerAde and most Lucozade sports drinks can be consumed after training. However, these drinks can be diluted with ½ water for consumption during training. Most carb loaded sports drinks have a low GI – athletes need to replace sugar / sodium / carb levels quickly during and immediately after training. Milk / milkshakes / yogurt drinks are a good source for replenishing these minerals / lost vitamins etc (Hypertonic drinks)

## Types of drinks

**Isotonic** - quickly replaces fluids lost by sweating and supplies a boost of carbohydrate. This drink is the choice for most athletes - middle and long distance running or team sports. Glucose is the body's preferred source of energy therefore it may be appropriate to consume Isotonic drinks where the carbohydrate source is glucose in a concentration of 6% to 8% - e.g. High Five, SiS Go, Boots Isotonic, Lucozade Sport (diluted)

### **Make your own.**

**Isotonic** - 200ml of orange squash (concentrated orange), 1 litre of water and a pinch of salt (1g). Mix all the ingredients together and keep chilled

**Hypotonic** - quickly replaces fluids lost by sweating . Suitable for athletes who need fluid without the boost of carbohydrate - jockeys and gymnasts.

### **Make your own.**

**Hypotonic** - 100ml of orange squash (concentrated orange), 1 litre of water and a pinch of salt (1g). Mix all the ingredients together and keep chilled.

**Hypertonic** - used to supplement daily carbohydrate intake normally after exercise to top up muscle glycogen stores. In ultra distance events high levels of energy are required and Hypertonic drinks can be taken during exercise (diluted 50% with water) to meet the energy requirements. If used during exercise Hypertonic drinks need to be used in conjunction with Isotonic drinks to replace fluids.

### **Make your own.**

**Hypertonic** - 400ml of orange squash (concentrated orange), 1 litre of water and a pinch of salt (1g). Mix all the ingredients together and keep chilled.